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BISNIS Search for Partners – Leads from the BioIndustry Initiative

INDUSTRY:
MEDICAL
EQUIPMENT AND
PRODUCTS,
PHARMACEUTIC
ALS, HEALTH
CARE SERVICES

COMPANY /
INSTITUTE:
Individual inventors

COUNTRY: Russian
Federation

MONOCLONAL ANTIBODIES SPECIFIC TO ANTIGENS TRADITIONALLY OF LOW IMMUNOGENECITY FOR NOVEL DIAGNOSTICS

ABSTRACT: The production of monoclonal antibodies with high specificity for antigens is central to the development of reliable diagnostic methods and novel therapies. Not all antigens, against which it would be desirable to produce antibodies, are available from natural sources ($\approx 30\%$). In such cases, chemical synthesis and recombinant technology are often used to obtain the antigen. However, artificially obtained antigens may have non-natural conformations, and therefore, antibodies obtained through immunization with artificial antigens do not recognize natural targets. The inventors, Drs. Peter Sveshnikov and Vsevolod Kiselev, have developed a method for producing monoclonal antibodies specific to antigens that are traditionally of low immunogenicity. This technology can be used to make highly specific monoclonal antibodies for diagnostics.

TYPE OF PARTNERSHIP OFFERED: Application-specific licenses and co-development arrangements.

COMPANY / INSTITUTE ROLE: Through this proprietary methodology, the inventors have produced 25 different monoclonal antibodies against a range of antigens, which are of interest to the pharmaceutical industry. The inventors seek partnerships and opportunities in the following areas:

- Development, manufacture and sale of kits for producing monoclonal antibodies;
- Service for developing antibodies against other low immunogenic artificial antigens;
- Development, manufacture and sale of diagnostics utilizing antibodies produced through the proprietary methodology.

CURRENT STATE OF DEVELOPMENT: Validation.

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INTELLECTUAL PROPERTY STATUS: This method is the subject of the PCT application #PCT/RU2004/000373 / WO2005/028510 (priority date 23 September, 2003; international publication date 31 March, 2005), which is currently entering the phase of national filings.

ABOUT COMPANY / INSTITUTE: The inventors are in the process of forming a corporation in order to facilitate the commercialization of the subject technology.

OTHER INFORMATION

Institute representatives will be attending BIO2006 (Chicago, April 9 – 12, 2006) and welcome the opportunity to meet with interested parties during the event. For more information:

<http://www.biistate.net/docs/bio2006.php> or email: EurasiaBio2006@biistate.net

MAJOR CUSTOMERS / INTERNATIONAL EXPERIENCE:

The new methodology has been successfully used to develop a diagnostic for early-stage human papilloma virus (HPV) associated cervical cancer based on the detection of the E7 antigen. The novel diagnostic is currently under validation studies through an agreement that envisions licensing and co-development with a major U.S. biotechnology company. In addition, the inventors have extensive experience with commercial contracts and international grants from organizations such as the International Science & Technology Center (www.istc.ru) and the US Civilian Research & Development Foundation (www.crdf.org).

PARTNERSHIP OPPORTUNITIES FROM BII. The BioIndustry Initiative (BII) is a nonproliferation program of the US Department of State's Bureau of International Security and Nonproliferation - Office of Cooperative Threat Reduction (ISN-CTR). BII's mission is to counter the threat of bioterrorism through targeted transformation of former Soviet biological weapons research and production capacities.

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